Priority Project List Number 17
Candidate Projects

Public Meetings – August 2007

Abbeville	**New Orleans**
August 29th	**August 30th**

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The 17th Priority List Planning Process

I. Development of Supporting Information

A. COE staff prepares spreadsheets indicating status of all restoration projects (CWPPRA PL 1-16; Louisiana Coastal Area (LCA) Feasibility Study, Corps of Engineers Continuing Authorities 1135, 204, 206; and State only projects). Also, indicate net acres at the end of 20 years for each CWPPRA project.

B. DNR/USGS staff prepares basin maps indicating:

1) Boundaries of the following projects types (PL 1-16; LCA Feasibility Study, COE 1135, 204, 206; and State only).
2) Locations of completed projects,
3) Projected land loss by 2050 with freshwater diversions at Caernarvon and Davis Pond and including all CWPPRA projects approved for construction through October 2006.
4) Regional boundary maps with basin boundaries and parish boundaries included.

II. Areas of Need and Project Nominations

A. The four Regional Planning Teams (RPTs) meet, examine basin maps, discuss areas of need and Coast 2050 strategies, and accept nomination of projects by hydrologic basin. Nominations for demonstration projects will also be accepted at the four RPT meetings. The RPTs will not vote at their individual regional meetings, rather voting will be conducted during a separate coast-wide meeting. At these initial RPT meetings, parishes will be asked to identify their official parish representative who will vote at the coast-wide RPT meeting.

B. One coast-wide RPT voting meeting will be held after the individual RPT meetings to present and vote for nominees (including demonstration project nominees). The RPTs will choose no more than two projects per basin, except that three projects may be selected from Terrebonne and Barataria Basins because of the high loss rates in those basins. A total of up to 20 projects could be selected as nominees. Selection of the projects nominated per basin will be by consensus, if possible. If voting is required, each officially designated parish representative in the basin will have one vote and each federal agency and the State will have one vote. The RPTs will also select up to six demonstration project nominees at this coast-wide meeting. Selection of demonstration project nominees will be by consensus, if possible. If voting is required, officially designated representatives from all coastal parishes will have one vote and each federal agency and the State will have one vote.

C. A lead Federal agency will be designated for the nominees and demonstration project nominees to assist LDNR and local governments in preparing preliminary project support information (fact sheet, maps, and potential designs and benefits). The Regional Planning Team Leaders will then transmit this information to the P&E Subcommittee, Technical Committee and members of the Regional Planning Teams.

III. Preliminary Assessment of Nominated Projects

A. Agencies, parishes, landowners, and other individuals informally confer to further develop projects. Nominated projects should be developed to support one or more Coast 2050 strategies. The goals of each project should be consistent with those of Coast 2050.

B. Each sponsor of a nominated project will prepare a brief Project Description (no more than one page plus a map) that discusses possible features. Fact sheets will also be prepared for demonstration project nominees.

C. Engineering and Environmental Work Groups meet to review project features, discuss potential benefits, and estimate preliminary fully funded cost ranges for each project. The Work Groups will also review the nominated demonstration projects and verify that they meet the demonstration project criteria.

D. P&E Subcommittee prepares matrix of cost estimates and other pertinent information for nominees and demonstration project nominees and furnishes to Technical Committee and Coastal Protection and Restoration Authority (CPRA).

IV. Selection of Phase 0 Candidate Projects

A. Technical Committee meets to consider the project costs and potential wetland benefits of the nominees. Technical Committee will select ten candidate projects for detailed assessment by the Environmental, Engineering, and Economic Work Groups. At this time, the Technical Committee will also select up to three demonstration project candidates for detailed assessment by the Environmental, Engineering, and Economic Work Groups. Demonstration project candidates will be evaluated as outlined in Appendix E.

B. Technical Committee assigns a Federal sponsor for each project to develop preliminary Wetland Value Assessment data and engineering cost estimates for Phase 0 as described below.

V. Phase 0 Analysis of Candidate Projects

A. Sponsoring agency coordinates site visits for each project. A site visit is vital so each agency can see the conditions in the area and estimate the project area boundary. Field trip participation should be limited to two representatives from each agency. There will be no site visits conducted for demonstration projects.

B. Environmental and Engineering Work Groups and the Academic Advisory Group meet to refine project features and develop boundaries based on site visits.

C. Sponsoring agency develops Project Information Sheets on assigned projects, using formats developed by applicable work groups; prepares preliminary draft Wetland Value Assessment Project Information Sheet; and makes Phase 1 engineering and design cost estimates and Phase 2 construction cost estimates.

D. Environmental and Engineering Work Groups evaluate all projects (excluding demos) using the WVA and review design and cost estimates.

E. Engineering Work Group reviews and approves Phase 1 and 2 cost estimates.

F. Economics Work Group reviews cost estimates and develops annualized (fully funded) costs.

G. Environmental and Engineering Work Groups apply the Prioritization Criteria and develop prioritization scores for each candidate project.

H. Corps of Engineers staff prepares information package for Technical Committee and CPRA. Packages consist of:

1) updated Project Information Sheets;

2) a matrix for each region that lists projects, fully funded cost, average annual cost, Wetland Value Assessment results in net acres and Average Annual Habitat Units (AAHUs), cost effectiveness (average annual cost/AAHU), and the prioritization score.

3) qualitative discussion of supporting partnerships and public support; and

I. Technical Committee hosts two public hearings to present information from H above and allows public comment.

VI. Selection of 17th Priority Project List

A. The selection of the 17th PPL will occur at the Fall Technical Committee and Task Force meetings.

B. Technical Committee meets and considers matrix, Project Information Sheets, and pubic comments. The Technical Committee will recommend up to four projects for selection to the 17th PPL. The Technical Committee may also recommend demonstration projects for the 17th PPL.

C. The CWPPRA Task Force will review the TC recommendations and determine which projects will receive Phase 1 funding for the 17th PPL.

D. The CPRA reviews projects on the 17th Priority List and considers for Phase I approval and inclusion in the upcoming Comprehensive Master Coastal Protection Plan.

Irish Bayou Wetland Creation and Shoreline Protection

Coast 2050 Strategy:

- Coastwide: Dedicated dredging to create, restore, or protect wetlands
- Coastwide: Maintenance of Gulf, bay and lake shoreline integrity
- Region1, Restore/Sustain Wetlands:#9, dedicated delivery of sediment for marsh building
- Region 1, Protect Bay and Lake Shorelines: #10, maintain shoreline integrity of Lake Pontchartrain to protect regional ecosystem values.
- Region1, Maintain Critical Landforms: #15, maintain Eastern New Orleans land bridge by marsh creation and shoreline protection.
- Mapping Unit Strategies: Region 1, East Orleans Land Bridge, #35, dedicated dredging; #36 maintain shoreline integrity.

Project Location:
Region 1, Pontchartrain Basin, Orleans Parish, East Orleans land bridge mapping unit, Norfolk Southern Railroad to Point aux Herbes south along Lake Pontchartrain to Bayou Chevee.

Problem:
The landfall of Hurricane Katrina in southeast Louisiana destroyed thousands of acres of marsh and other coastal habitats in the Lake Pontchartrain basin. The hurricane weakened the Lake Pontchartrain shore between the lake rim and interior marshes near Bayou Chevee. In some cases the storm removed large expanses of the shoreline and exposed interior marshes. Currently only a portion of the lakeshore is protected by a rock dike (PPL 5, PO-22). This dike was originally tied to the shoreline; however the interior marsh has eroded away. Continued shoreline erosion and future storms could create a direct path of open water connecting Lake Pontchartrain with Irish Bayou and the Bayou Sauvage NWR.

Goals:
The goals of the project are to reduce shoreline erosion and create marsh in order to prevent the lake shoreline from breaking into the interior marsh ponds.

Proposed Solution:
Construct 16,810 LF of new foreshore rock dikes and raise the height of 3,000 LF of existing rock dikes to be used for containment and to protect shoreline and interior marshes. Create 121 acres of marsh in shallow open water sites behind the rock shoreline protection.

Project Benefits:
The project would benefit about 232 acres of brackish marsh and open water. Approximately 191 acres of marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 19,647,483.

Preparers of Fact Sheet:
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Irish Bayou Wetland Creation and Shoreline Protection (PPL17 Candidate)

PO-22 Existing Rock Dike
Bayou Savauge Shoreline Protection *
Shoreline Protection *
Marsh Creation *
Project Boundary *

* denotes proposed features

0.5 0 0.5
Kilometers
0.5 0 0.5
Miles

Scale 1:42,000

USGS science for a changing world

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La

Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0242
Map Date: August 05, 2007

Bayou Dupont Marsh and Ridge Creation

Coast 2050 Strategy:

- Coastwide Strategy – Dedicated Dredging, to Create, Restore, or Protect Wetlands

Project Location:
Region 2, Barataria Basin, Jefferson Parish, adjacent to Bayou Dupont southeast of the Pen.

Problem:
There is widespread historic and continued rapid land loss in the project area due to altered hydrology, wind erosion, and subsidence. Wetlands in the project vicinity are being lost at the rate of –1.72%/year based on USGS data from 1988 to 2006.

Goals:
Project goals include 1) creating/nourishing marsh and associated edge habitat for aquatic species through pipeline sediment delivery from the Mississippi River, and 2) creating a ridge along a portion of the southwestern shoreline of Bayou Dupont. Specific phase 0 goals include creating 184 acres brackish marsh, nourishing 118 acres of brackish marsh and constructing about 15 acres of maritime ridge habitat.

Proposed Solution:
Approximately 184 acres of marsh would be created and 103 acres of existing marsh would be nourished via confined disposal of sediment dredged from the Mississippi River.
About 17 acres of ridge would be created along the bayou after the fill material consolidates to allow shaping up to a +6 ft crown, 30 ft wide. Approximately 10 acres of a bayou side marsh berm would be constructed during the ridge shaping. Containment dikes would be breached no later than three years after construction. The created marsh and ridge would be planted as well as intense Chinese Tallow control would be conducted for the ridge. Collectively, this would the first step to restoring the banklines of Bayou Dupont.

Project Benefits:
The project would benefit 317 acres of brackish fresh marsh and open water. Approximately 170 acres of brackish marsh and 17 acres of ridge would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 21,626,767.

Preparers of Fact Sheet:
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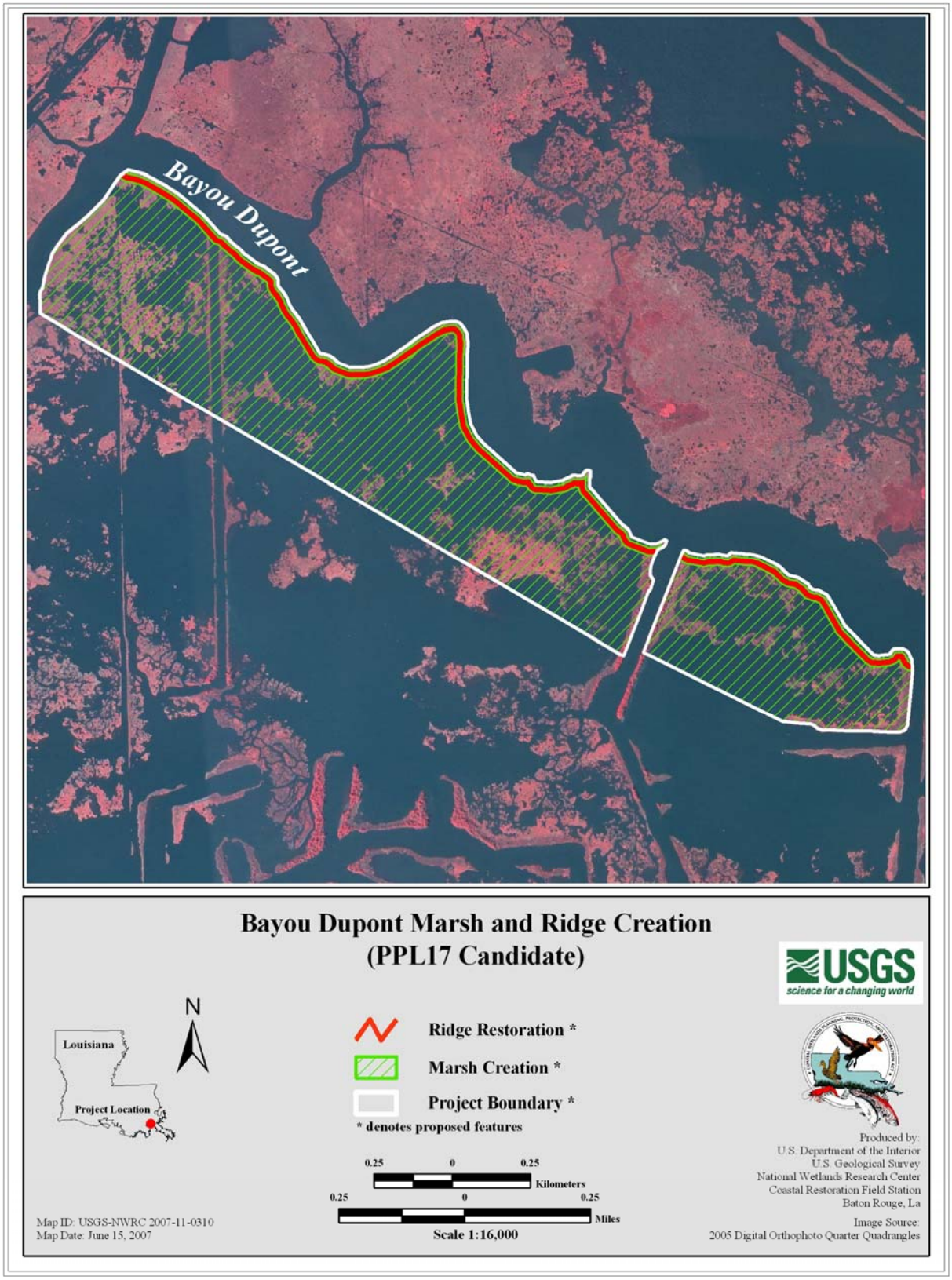
Bayou Dupont
Bayou Dupont Marsh and Ridge Creation
(PPL17 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Ridge Restoration *
Marsh Creation *
Project Boundary *
* denotes proposed features
0.25 0 0.25
Kilometers
0.25 0 0.25
Miles
Scale 1:16,000
Map ID: USGS-NWRC 2007-11-0310
Map Date: June 15, 2007
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Bayou Thunder Marsh Creation and Shoreline Protection

Coast 2050 Strategy:
- Dedicated dredging to create marsh
- Maintain Caminada Bay shoreline integrity

Project Location:
Region 2, Barataria Basin, Lafourche and Jefferson Parishes, Chenier Caminada, north of Hwy 1.

Problem:
The marshes between Caminada Bay and Highway 1 are experiencing both bay margin erosion and interior loss. Bay shoreline erosion estimates based on 1998 and 2005 aerial photography suggest that erosion in this area ranges from five feet/year to in excess of 50 feet/year in some areas. Significant interior losses are occurring as well. It is anticipated that in the next 20 years, half of the existing marshes in the project area will be converted to open water. Continued loss in this area may lead to adverse impacts to adjacent developed areas along Chenier Caminada and Highway 1. Based on anecdotal information, it appears that recent wetland losses in this area may contribute to local flooding of Highway 1.

Goals:
- Maintain landform separating Caminada Bay, Chenier Caminada, and Highway 1 through the creation of 175 acres and nourishment of an additional 173 acres of saline marsh.
- Provide shoreline protection as needed to reduce bay shoreline erosion along 1,500 feet of critically eroding shoreline.

Proposed Solution:
This project would create 175 acres marsh in existing open water areas and nourish an additional 173 acres fragmented marsh. Additionally, extension of the existing shoreline protection will be considered to maintain a continuous marsh buffer between Highway 1 and Caminada Bay.

Project Benefits:
The project would benefit at least 348 acres of saline marsh and bay rim. Approximately 163 acres of marsh would be created/protected over the 20-year project life. Additionally, the project would maintain the landform that separates the open waters of Caminada Bay from Chenier Caminada and the Highway 1 corridor.

Project Costs:
The total fully funded cost for the project is $ 20,920,120 .

Preparers of Fact Sheet:
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Bayou Thunder Marsh Creation and Shoreline Protection (PPL17 Candidate)

USGS science for a changing world

Shoreline Protection *

Marsh Creation *

Project Boundary *

* denotes proposed features

0.25 0 0.25 Kilometers

0.25 0 0.25 Miles

Scale 1:20,000

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La

Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0255
Map Date: June 12, 2007

Caernarvon Outfall Management and Lake Lery Shoreline Restoration

Coast 2050 Strategy:

- Region 2 - Restore and Sustain Marshes via Managing Outfall of Existing Diversions
- Coastwide – Dedicated dredging for wetland creation.
- Coastwide – Maintenance of bay and lake shoreline integrity.
- Coastwide - Vegetative Plantings

Project Location:
Region 2, Breton Sound Basin, St. Bernard and Plaquemines Parishes, Caernarvon mapping unit, marshes located north and south of Lake Lery.

Problem:
1) According to USGS-NWRC mapping, much of the wetlands surrounding Lake Lery were heavily damaged along with the Lake Lery shoreline due to Hurricane Katrina. Wind induced waves within Lake Lery could further damage the lakes shorelines and cause accelerated interior marsh loss. 2) Marshes north of Lake Lery have historically not benefited from the diversion as have those marshes to the south and west. Those marshes to the east have been deteriorating from increased salinities and a lack of freshwater from the diversion. After Katrina the two canals that transported the limited amount of freshwater eastward have been completely blocked with debris to a point where there is virtually no fresh water reaching those marshes. Furthermore, these same marshes were severally damaged from the storm and with the lack of fresh water from the diversion it is unlikely that they will be restored without some assistance.

Goals:
The goal of this project is to stop shoreline erosion and to promote accretion of marsh between the breakwater and the existing shoreline.

Proposed Solution:
This project would divert a portion of the river water by dredging an 850 LF conveyance channel from the Caernarvon Outfall Canal across the Caernarvon Canal to the marshes east of Bayou Mandeville. This project would also restore approximately 32,000 linier feet of the Lake Lery shoreline and plant the restored lakeward edge. Approximately 396 acres of interior marsh along the southern shoreline of Lake Lery would be created or nourished.

Project Benefits:
The project would benefit approximately 10,899 acres of intermediate marsh and open water. Approximately 652 acres of marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 25,137,149.

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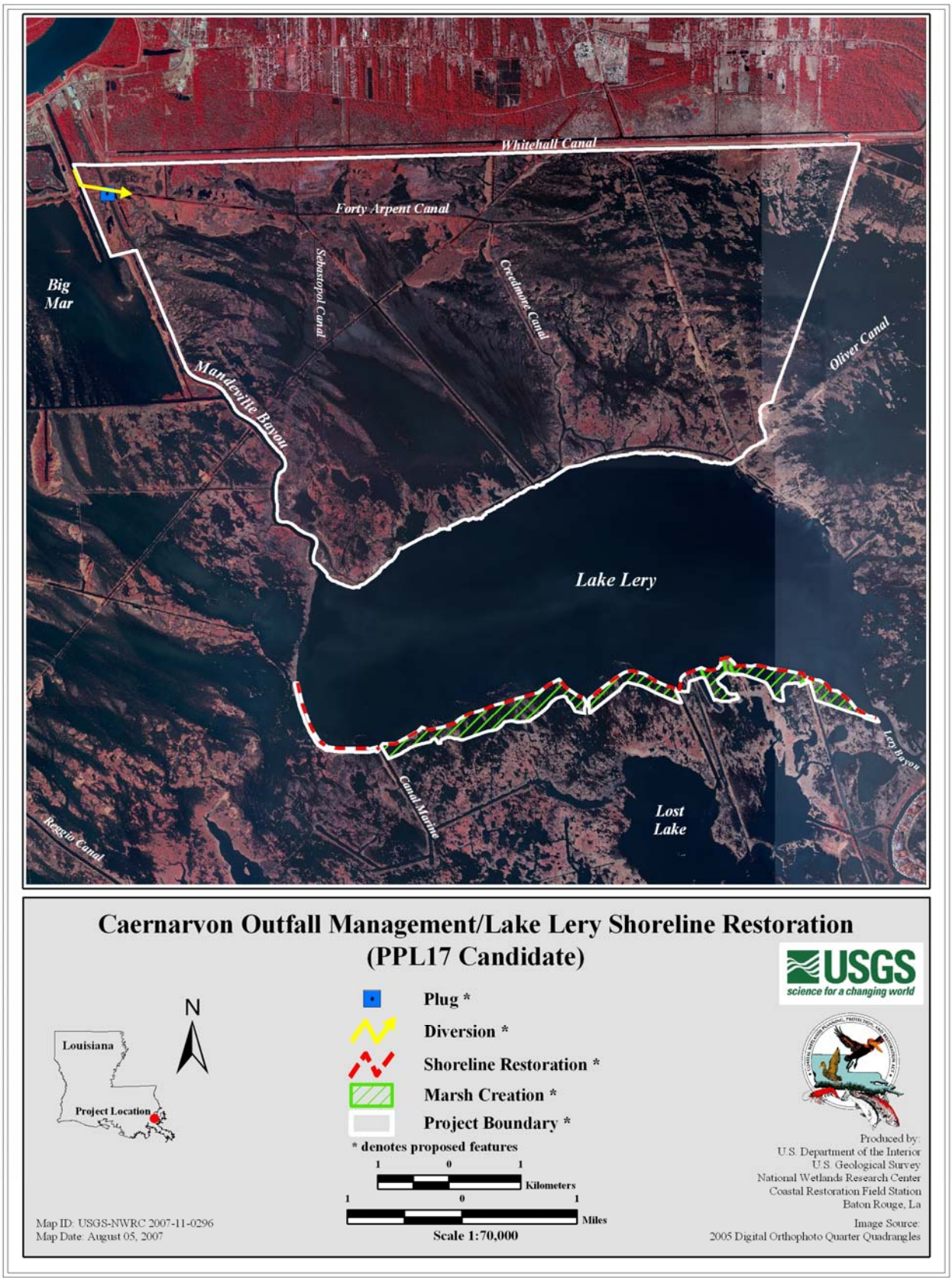
Whitehall Canal
Forty Arpent Canal
Sebastopol Canal
Creedmore Canal
Big Mar
Mandeville Bayou
Oliver Canal
Lake Lery
Canal Marine
Lost Lake
Reggio Canal
Lacy Bayou
Caernarvon Outfall Management/Lake Lery Shoreline Restoration
(PPL17 Candidate)
N
Louisiana
Project Location
Plug *
Diversion *
Shoreline Restoration *
Marsh Creation *
Project Boundary *
* denotes proposed features
1 0 1
Kilometers
1 0 1
Miles
Scale 1:70,000
USGS
science for a changing world
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2005 Digital Orthophoto Quarter Quadrangles
Map ID: USGS-NWRC 2007-11-0296
Map Date: August 05, 2007

Bohemia Mississippi River Reintroduction

Coast 2050 Strategies:

- Regional Ecosystem Strategy-Restore and Sustain marshes
- Region Regional Strategy: #8 Construct most effective small diversions.

Project Location:
Region 2, Breton Sound Basin, Plaquemines Parish, East bank of the Mississippi River approximately 6.5 miles upstream of the Bayou Lamoque diversion structures.

Problem:
As a result of the leveeing of the Mississippi River for navigation and flood control, this area was cut off from the historic overbank flooding of the river. Isolating the wetlands from the Mississippi River has severely limited the amount of new land that can be created here by the river. Freshwater, sediment, and nutrients that could be helping to build new wetlands here and elsewhere are shunted off the edge of the continental shelf in the Gulf of Mexico.

Goals:

- Create approximately 640 acres of marsh
- Convert saline and brackish marsh to brackish and intermediate marsh
- Increase submerged aquatic vegetative cover
- Increase shallow water habitat
- Improve habitat interspersion

Proposed Solution:
Reintroduce Mississippi River water into the wetlands, restoring natural deltaic growth and habitats. An uncontrolled diversion with a capacity of approximately 10,000 cubic ft per second will be constructed.

Project Benefits:
The project would benefit 5,227 acres of saline and brackish marsh and open water. Approximately 635 acres of marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $6,923,792.

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Bohemia Mississippi River Reintroduction (PPL17 Candidate)

Control Structure *
Diversion Channel Improvment *
Forebay *
Marsh Creation *
Project Boundary *

* denotes proposed features

0.5 0 0.5 Kilometers
0.5 0 0.5 Miles

Scale 1:40,000

USGS science for a changing world

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La

Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0300
Map Date: June 19, 2007

West Pointe a la Hache Marsh Creation

Coast 2050 Strategies:

- Dedicated dredging to create, restore, or protect wetlands
- Off-shore and riverine sand and sediment resources

Project Location:
Region 2, Barataria Basin, Plaquemines Parish, in the outfall area of the West Pointe a la Hache siphon

Problem:
As a result of leveeing of the Mississippi River for navigation and flood control, the West Pointe a la Hache wetlands were cut off from the historic overbank flooding of the river. Without continued sediment input, marshes couldn't maintain viable elevations due to ongoing subsidence. In addition, oil and gas canals disrupted hydrology and facilitated saltwater intrusion further degrading the marsh. Beginning in 1993, the siphons at West Pointe a la Hache were operated to reintroduce Mississippi River water, fine sediments, and nutrients into this area. However, land loss rates have continued to be high. An opportunity exists to create marshes directly in the outfall of the siphons using sediment from the nearby Mississippi River. The created marshes should benefit from the effects of the reintroduced Mississippi River water from the siphons.

Goals:

- Convert approximately 250 acres of open water habitat to intermediate marsh.
- Nourish approximately 102 acres of existing intermediate marsh with dredged material.
- Maintain 203 acres of created/nourished marsh over the 20 year project life.

Proposed Solution:
Dredge sediments from the Mississippi River to restore and nourish 352 acres of marsh habitat.

Project Benefits:
The project would benefit 352 acres of marsh. Approximately 203 acres of marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $16,136,639

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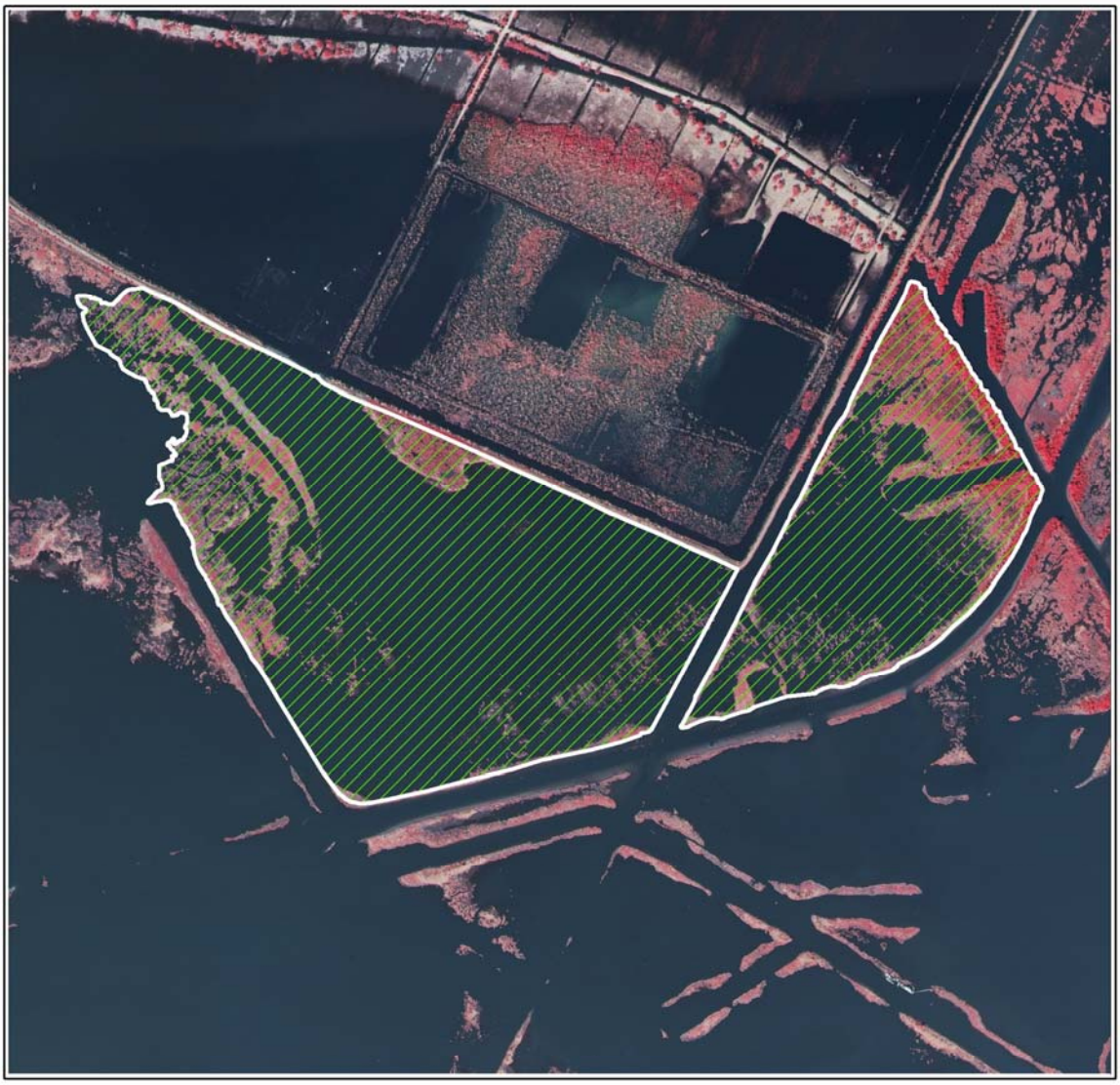

West Pointe a la Hache Marsh Creation
(PPL17 Candidate)

Marsh Creation *

Project Boundary *

* denotes proposed features

0.2 0 0.2 Kilometers

0.2 0 0.2 Miles

Scale 1:15,000

USGS science for a changing world

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La

Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0264
Map Date: June 13, 2007

Pass a Loutre Restoration

Coast 2050 Strategy:

- Regional Strategy – Continue building and maintaining delta splays

Project Location:
Region 2, Mississippi River Delta Basin, Plaquemines Parish, north and south of Pass a Loutre on the Delta National Wildlife Refuge (NWR) and Pass a Loutre Wildlife Management Area (WMA).

Problem:
Historically, Pass a Loutre was a major distributary of the Mississippi River at Head of Passes. This pass carried sediments that created and maintained in excess of 120,000 acres of marsh. Pass a Loutre is not a maintained navigation channel and over time has filled in considerably and carries much less flow than it did historically. As a result, much of the historic Pass a Loutre channel has silted in and is now very shallow and narrow. The decreased channel size has much less capacity to carry fresh water and sediments and marshes historically nourished by the channel are now being starved and are subsiding at an alarming rate. In addition, a hopper dredge disposal site located at the beginning of Pass a Loutre at Head of Passes has contributed to the infilling of the channel.

Goals:
The goal of this project is to restore an important distributary of the Mississippi River so that it will once again create new wetlands and nourish existing marsh. Dredged material will create marsh immediately and the increased fresh water and sediment carrying capacity of the channel will create marsh over time and increase the abundance and diversity of submerged aquatic vegetation.

Proposed Solution:
Pass a Loutre would be dredged for approximately 6.5 miles from Head of Passes to just east of Southeast Pass to restore channel flow to historic levels. Approximately 6.0M yd^3 of material would be dredged and used to create approximately 465 acres of marsh on Delta NWR. Preliminary design includes a channel with a 300-ft bottom width and 30-ft depth. Several crevasses and cleanout of some existing crevasses are also proposed on Delta NWR and Pass a Loutre WMA.

Project Benefits:
The project would benefit 26,849 acres of marsh and open water habitats. A total of 1,305 acres of marsh would be protected/created over the 20-year project life.

Project Costs:
The total fully-funded cost is $26,591,033.

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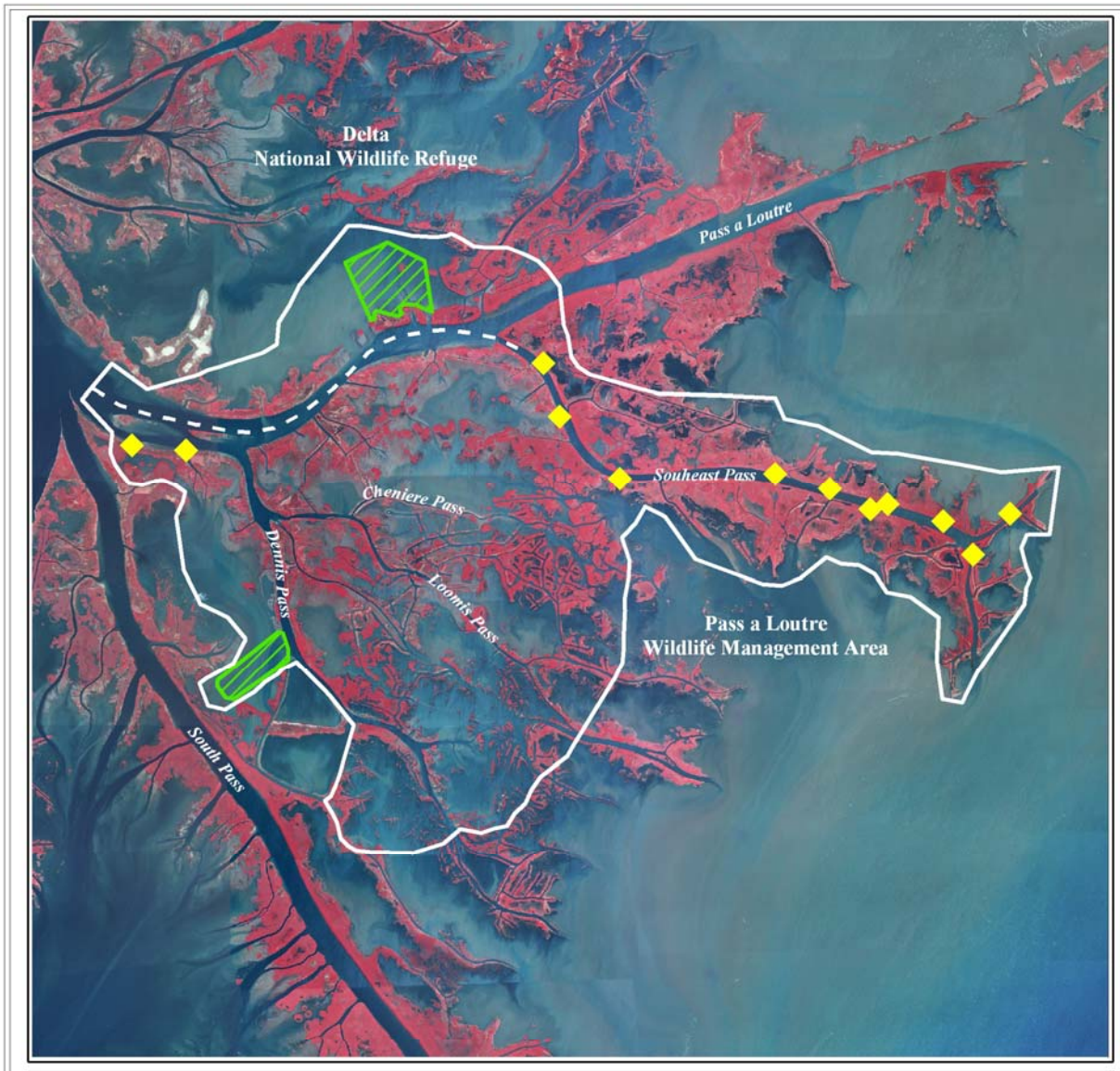

Pass a Loutre Restoration (PPL17 Candidate)

Crevasse *

Dredged Channel *

Marsh Creation *

Project Boundary *

* denotes proposed features

1 0 1 Kilometers

1 0 1 Miles

Scale 1:118,000

USGS science for a changing world

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La

Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0321
Map Date: July 02, 2007

Southeast Lake Boudreaux Marsh Creation and Terracing

Coast 2050 Strategy:

- Coastwide: Terracing and Dedicated Dredging, to Create, Restore, or Protect Wetlands
- Boudreaux Mapping Unit: Establish and protect ridge function and beneficial use of dredged material

Project Location:
Region 3, Terrebonne Basin, Terrebonne Parish, within southeast Lake Boudreaux west of the Bayou Petite Caillou Ridge and Hwy. 56, and south of Boudreaux Canal.

Problem:
The interior marshes of Terrebonne Parish have experienced tremendous loss due to a variety of forces including subsidence, salt water intrusion, a lack of sediment supply, and oil and gas activities. The loss of these marshes has exposed significant infrastructure to open water conditions, and has made the area less suitable for fisheries and wildlife. The project would provide direct protection to the Petite Caillou Ridge and significant infrastructure including LA Hwy 56, which is currently subjected to wave energy entering from Lake Boudreaux. The 1978 to 2006 loss rate of the Boudreaux mapping unit is 2.8%/yr, with a subsidence rate of 1.1 to 2.0 ft/century.

Goals:
Project goals include 1) creating emergent marsh and associated edge habitat, 2) reduce the wave erosion impacting the Petite Caillou ridge, and 3) constructing terraces and secondarily promote conditions more conducive to the colonization of submerged aquatic vegetation (SAV) than currently exist.

Proposed Solution:
The project consists of both marsh creation and terracing by dedicated dredging to create habitat and provide buffer protection to the Petite Caillou Ridge and LA Hwy 56. Approximately 257 acres of intertidal brackish marsh will be created using material from Lake Boudreaux, in addition to the nourishment of 39 acres of existing marsh. In addition, approximately 53,450 linear feet of earthen terraces (3 ft height, 10 ft crown with 1:5 slopes) will be constructed with a marsh buggy to flank the existing and created marshes. Upon completion, the constructed areas will be vegetated with indigenous marsh species to predominantly include *Spartina alterniflora*.

Project Benefits:
The project would benefit 712 acres of brackish marsh and open water. Approximately 231 acres of marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 20,431,032 .

Preparers of Fact Sheet:
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Southeast Lake Boudreaux Marsh Creation and Terracing (PPL17 Candidate)

Terrace Field * (see Note)

Marsh Creation *

Project Boundary *

* denotes proposed features

Note: Terraces on map are a representative layout to be finalized by Engineering Workgroup. Tidal breaks will be inserted during the engineering phase.

0.2 0 0.2 Kilometers

0.2 0 0.2 Miles

Scale 1:17,000

USGS science for a changing world

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La

Image Source:
2005 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0274
Map Date: July 23, 2007

Beach and Back Barrier Marsh Restoration - East Island

Coast 2050 Strategies:
Coastwide Common Strategies-Dedicated dredging for wetland creation, Vegetative planting, utilize offshore sand and sediment resources.
Regional Ecosystem Strategies- Restore and sustain marshes- #8. Dedicated delivery of sediment for marsh building by an feasible means; Restore barrier islands and Gulf shorelines-#12. Restore and maintain the Isles Dernieres and Timbalier barrier island chains.
Mapping Unit Strategies- #33. Protect bay/gulf shorelines

Project Location:
Region 3, Terrebonne Basin, Terrebonne Parish, part of the Isles Dernieres, approximately 38 miles south of Houma, LA

Problem:
East/Trinity Island is part of the Isles Dernieres barrier island chain, one of the most rapidly deteriorating barrier shorelines in the U.S. These barrier islands ensure that the estuaries behind them are low energy environments capable of supporting wetlands and emerging deltas where Mississippi River water is reintroduced. These islands lack a stable subaerial backbarrier platform upon which the islands can migrate landward.

Goals:
1)provide a backbarrier platform to enable successful island migration;
2) extend the life of this barrier island by increasing its width;
3) create 160 ac of vegetated intertidal marsh using new dredged material and vegetative plantings;
4) protect the Terrebonne estuary and vegetated wetlands against the direct exposure to the Gulf of Mexico.
5) add sand to this sand-starved barrier island system

Proposed Solution:
Dredged material will be placed on the back side of the island creating additional backbarrier marsh and along the Gulf shoreline. The former will provide a stable backbarrier platform on which the island can migrate landward, while the latter will provide additional sand for redistribution by currents and waves along the entire island's Gulf beach.

Project Benefits:
The project would benefit about 2,155 acres of barrier island habitat. Approximately 92 acres of marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 19,535,422.

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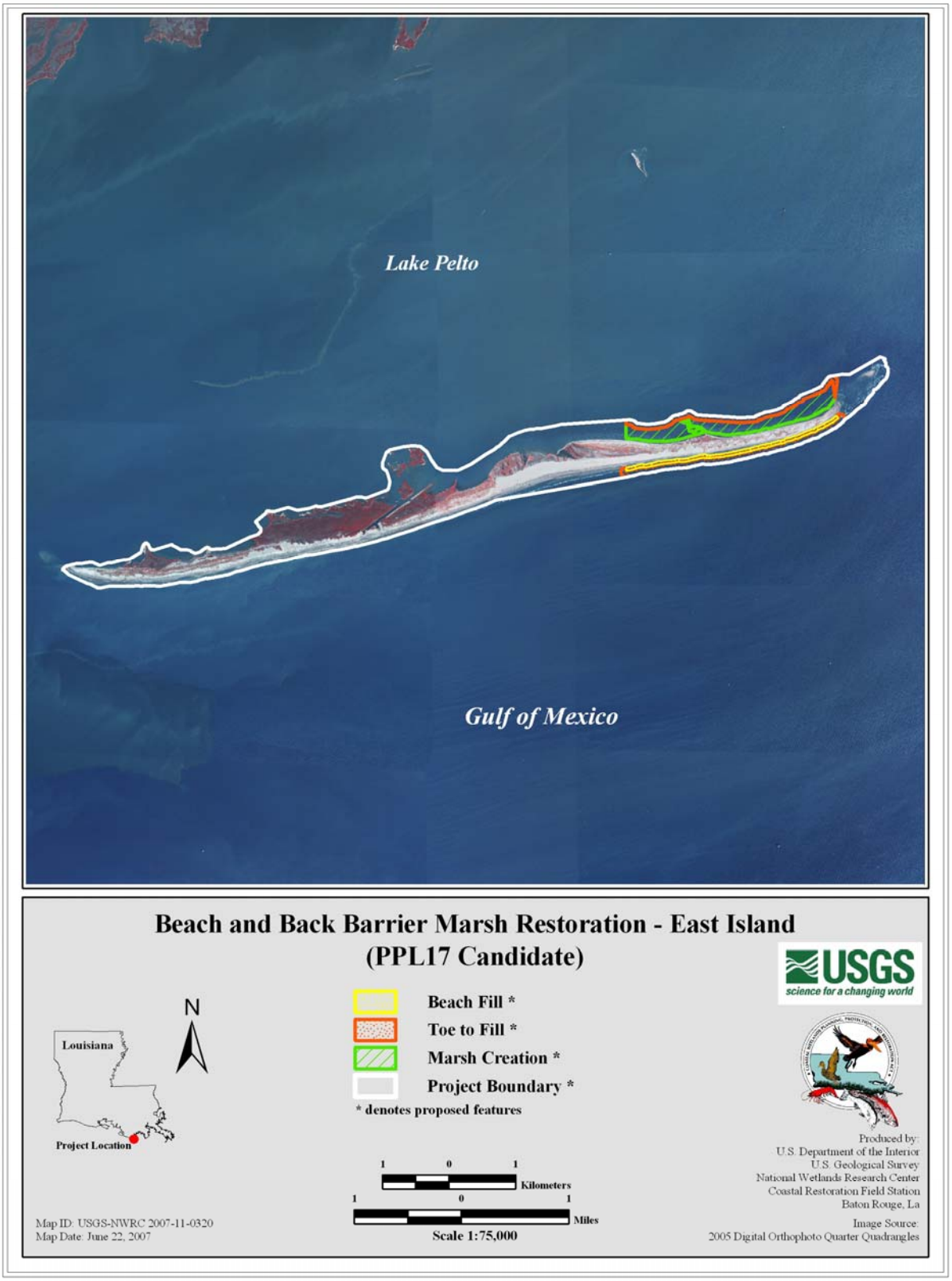
Lake Pelto
Gulf of Mexico
Beach and Back Barrier Marsh Restoration - East Island
(PPL17 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Beach Fill *
Toe to Fill *
Marsh Creation *
Project Boundary *
* denotes proposed features
1 0 1
Kilometers
1 0 1
Miles
Scale 1:75,000
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2005 Digital Orthophoto Quarter Quadrangles
Map ID: USGS-NWRC 2007-11-0320
Map Date: June 22, 2007

East Cove Marsh Creation Project

Coast 2050 Strategy:
Regional Strategy: Use dedicated dredging or beneficial use of sediment for wetland creation or protection.

Project Location:
Region 4, Calcasieu-Sabine Basin, Cameron Parish, 1.5 miles north of Cameron, in the southwestern portion of the Cameron-Creole Watershed on the Cameron Prairie NWR.

Problem:
Former project area brackish marshes have converted to open water due to subsidence and saltwater intrusion from the Calcasieu Ship Channel. The Cameron-Creole Watershed Hydrologic Restoration project was implemented in 1989 to relieve the saltwater intrusion problem but has not succeeded in revegetating the area. Hurricane Rita in 2005 breached the watershed levee scouring the marsh and allowing higher Calcasieu Lake salinities to enter the watershed causing more land loss. Sediment and water level drawdowns are needed to restore shallow open water areas to marsh.

Goals
The project purpose is to recreate approximately 604 acres of marsh via beneficial use of maintenance dredged material from the Calcasieu Ship Channel.

Proposed Solution:
Place material beneficially from normal maintenance dredging of the Lower Calcasieu River from Mile Points 5 to 12 in two disposal areas in the southwest portion of the Cameron-Creole Watershed. The Corps of Engineers, New Orleans District dredges approximately 1.88 million cubic yards of maintenance material every 2 years from this reach. The project would transport approximately 3.76 million cubic yards of dredged material to two open water areas, totaling 604 acres, to restore a net 509 acres of marsh in two cycles [Cycle 1 (East) equals 228 net acres; Cycle 2 (West) equals 281 net acres). Following construction, retention levees would be degraded, man-made bayous (trenasses) constructed, and a 50-foot-wide perimeter of smooth cordgrass plantings installed for estuarine fisheries access and to achieve a functional marsh.

Project Benefits:
The project would benefit 604 acres of brackish and saline marsh and open water. Approximately 509 net acres of marsh would be created over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $18,413,579.

Preparers of Fact Sheet:
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East Cove Marsh Creation
(PPL17 Candidate)

USGS
science for a changing world

Earthen Retention Dike *
Earthen Weir *
Marsh Creation *
Project Boundary *

* denotes proposed features

0.5 0 0.5 Kilometers
0.5 0 0.5 Miles

Scale 1:33,000

Map ID: USGS-NWRC 2007-11-0232
Map Date: July 05, 2007

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La

Image Source:
2005 Digital Orthophoto Quarter Quadrangles

DEMONSTRATION PROJECTS

Section 303(a) of the CWPPRA states that in the development of Priority Project List, ". . . [should include] due allowance for small-scale projects necessary to demonstrate the use of new techniques or materials for coastal wetlands restoration."

The CWPPRA Task Force, on April 6, 1993, stated that: "The Task Force directs the Technical Committee to limit spending on demonstration projects to $2,000,000 annually. The Task Force will entertain exceptions to this guidance for projects that the Technical Committee determines merit special consideration. The Task Force waives the cap on monitoring cost for demonstration projects."

The CWPPRA Task Force, on April 12, 2006, passed a motion concerning the selection of demonstration projects. The Task Force agreed to consider funding, upon review, at least one credible demonstration project annually with estimates not to exceed $2 million.

What constitutes a demonstration project:

1. Demonstration projects contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone.

2. Demonstration projects contain new technology, which can be transferred to other areas of the coastal zone.

3. Demonstration projects are unique and are not duplicative in nature.

PPL 17 Demonstration Project Candidates

In a change from previous years, demonstration projects were nominated at the 4 Regional Planning Team (RPT) meetings. Regional Planning Teams selected six (6) demonstration project nominees at the February 7, 2007 Coastwide RPT voting meeting. Demonstration project nominees were reviewed by the Environmental and Engineering Workgroups to verify that they met demonstration project criteria. On March 14, 2007 the Technical Committee selected three (3) demonstration project candidates for detailed assessments by the workgroups.

The following proposed demonstration projects were evaluated as candidates for the 17th Priority Project List:

- Bioengineered Oyster Reef Demo
- Sediment Containment System for Marsh Creation Demo
- Positive Displacement Pump Demo

Bio-Engineered Oyster Reef Demonstration Project

Coast 2050 Strategy:
Region 4 Strategy 15: *Stabilizing Gulf of Mexico Shoreline in the Vicinity of Rockefeller Refuge*.

Project Location:
Region 4, Mermentau Basin, Chenier subbasin, Cameron & Vermilion Parishes, along the Gulf of Mexico shoreline

Problem:
The purpose of this project is to test a new, bio-engineered, product to address rapid shoreline retreat and wetland loss along the Gulf of Mexico Shoreline in areas with soils of low load bearing capacity. For example, at Rockefeller Refuge, the direct Gulf of Mexico frontage and extremely low soil load bearing capacity (250-330psf), coupled with an average shoreline retreat of 30.9 ft/yr present unique engineering challenges.

Goals:
The goal of this demonstration project is to evaluate the proposed technique as a cost effective technique for protecting areas of Coastal Louisiana's Gulf of Mexico Shoreline with poor load bearing capacities.

Proposed Solution:
The demonstration project would consist of an Oysterbreak, approximately 1000' long. The Oysterbreak is a light-weight, modular shore protection device that uses accumulating biomass (an oyster reef) to dissipate wave energy. The bioengineered structure is designed to grow rapidly into an open structured oyster reef utilizing specifically designed structural components with spat attractant (agricultural byproducts) and enhanced nutrient conditions conducive to rapid oyster growth. The Oysterbreak is constructed by placing modular units into an open interlocked configuration. The units are sized to be stable under storm wave conditions. The height and width of the Oysterbreak are designed to achieve a moderate initial wave energy reduction. As successive generations of encrusting organisms settle on the Oysterbreak, the structure's ability to dissipate wave energy increases.

Project Benefits:
If the Oysterbreak successfully prevents beach erosion, it will provide the CWPPRA program with another restoration tool for the Gulf of Mexico Shoreline in areas with soils of low load bearing capacity. Direct benefits for this project are approximately 4.5 acres (1,000 ft x 39 ft/yr x 5 yrs x 1 acre/43,560 sq ft) of wetlands will be protected. Secondary benefits include increased habitat diversity and complexity, increased nekton utilization, and recreational fishing benefits associated with natural oyster reefs.

Project Costs:
The total fully funded cost for the project is $ 1,981,822.

Preparers of Fact Sheet:
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Sediment Containment for Marsh Creation Demonstration Project

Coast 2050 Strategy:

- Management of diversion outfall for wetland benefits
- Dedicated dredging to create restore or protect wetlands

Project Location:
Coastwide

Problem:
Small and medium freshwater diversions that flow into broad areas and small dredge projects require confinement and trapping features to form marsh because the materials entering the area are often too dilute or fine to result in any appreciable accumulation. A method to delineate smaller areas to concentrate sediments flowing across an area would improve suspended sediment retention efficiency and allow accumulations to occur within a more timely and cost-effective manner. A sediment trapping mechanism would also allow for taking advantage of finer materials that would otherwise largely flow through the target area or require costly construction of some form of containment.

Goals:
The overall goal of the project is to demonstrate the effectiveness of a sediment trapping system to strategically define areas of accumulation and improve the efficiency of passive sediment retention in small and medium freshwater diversions as well as mechanized introduction of fluid material to create marsh.

Proposed Solution:
The project will demonstrate the effectiveness of a sediment trapping system designed for dredge containment to facilitate both sediment retention and accumulation in freshwater diversion that are located in broad areas where sediments tend to dissipate and to demonstrate the ability of the system to perform in small dredge applications. The project will demonstrate that by isolating areas where accumulation can be concentrated accretion rates will be greatly enhanced and speed up marsh creation.

Project Benefits:
The project will benefit any area in coastal Louisiana by facilitating containment where suspended sediment load is adequate for potential marsh development but retention is low due to broad open water expanse or channelization. The project will also benefit small dredge projects by providing a cost-effective alternative to earthen containment, particularly in areas where construction of earthen containment may be problematic (e.g. flow lines and poor soils).

Project Costs:
The total fully funded cost for the project is $ 1,163,343.

Preparer of Fact Sheet
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Positive Displacement Pump Solution (TurboPiston Pump) Demonstration Project

Coast 2050 Strategy:
Coast wide Strategies: Offshore and riverine sand and sediment sources

Potential Demonstration Project Location(s):
Coast wide, Region 2, Barataria Basin, Jefferson or Brenton Sound Basin near Violet, Plaquemines Parish

Goals:

The goal of this demonstration project is to demonstrate the ability of a newly patented type of positive displacement pump that has the ability to pump a high volume of sediment slurry over distances of 5-10 miles without a booster pump while replacing the need for a dredge to supply sediment to the system. It allows for both high volume and high pressure simultaneously, unlike pumps currently utilized. By using high pressure water to jet the sediment bed during slow river flow periods this system can act as a passive unmanned source of sediment flow on a 24 hour, seven day a week delivery system schedule with no need to halt the process to avoid vessel traffic or crew schedules. This allows for higher productivity rates and lower costs to produce coastal marshes. The energy efficiency of the system is enhanced via its use of a positive displacement pump having mechanical and hydraulic efficiencies on the order 92 to 95% compared to 50 to 60% for standard dredge and booster pumps. It utilizes a high pressure jet to set upstream of the pump system inlet to increase the suspended sediment load delivered.

Proposed Solution:

A smaller prototype of the TurboPiston Pump would be utilized to demonstrate the potential capability to supply and to move sediments via pipeline over longer distances than current technology allows, without the need for additional booster pumps, in a relatively passive self controlled system.

Project Costs:

The total fully funded cost for the project is $ 3,069,108. The 24" TurboPiston Pump would be provided by Louisiana Pump, Inc. at no cost to this project

Preparer(s) of Fact Sheet:

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PPL17 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Prioritization Score	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Irish Bayou Wetland Creation and Shoreline Protection	1	Orleans	232	86	191	49.0	$19,647,483	$1,714,265	$17,933,218	$1,412,331	$16,422	$102,866
Bayou Dupont Marsh and Ridge Creation	2	Jefferson	317	121	187	44.0	$21,626,767	$2,013,881	$19,612,886	$1,579,559	$13,054	$115,651
Bayou Thunder Marsh Creation and Shoreline Protection	2	Lafourche / Jefferson	348	101	163	45.3	$20,920,120	$1,649,967	$19,270,153	$1,516,609	$15,016	$128,344
Caernarvon Outfall Management/Lake Lery Shoreline Restoration	2	Plaquemines / St. Bernard	16,260	302	652	52.5	$25,137,149	$2,665,993	$22,471,156	$1,955,719	$6,476	$38,554
Bohemia Mississippi River Reintroduction	2	Plaquemines	5,227	989	635	71.0	$6,923,792	$1,359,699	$5,564,093	$541,255	$547	$10,904
West Pointe a la Hache Marsh Creation	2	Plaquemines	352	126	203	50.3	$16,136,639	$1,620,740	$14,515,899	$1,254,322	$9,955	$79,491
Pass a Loutre Restoration	2	Plaquemines	26,849	800	1,305	62.5	$26,591,033	$2,148,661	$24,442,372	$2,092,202	$2,615	$20,376
Southeast Lake Boudreaux Marsh Creation and Terracing	3	Terrebonne	712	127	231	44.8	$20,431,032	$2,128,140	$18,302,892	$1,584,535	$12,477	$88,446
Beach and Back Barrier Marsh Restoration - East Island	3	Terrebonne	2,155	247	92	60.0	$19,535,422	$1,972,121	$17,563,301	$1,503,061	$6,085	$212,342
East Cove Marsh Creation	4	Cameron	604	210	509	53.5	$18,413,579	$1,076,681	$17,336,898	$857,414	$4,083	$36,176

dated: August 15, 2007

Eng/Env WG Review of PPL 17 Demonstration Projects

(Parameter grading as to effect: 1 = low; 2 = medium; 3 = high)

Demonstration Project Name	Total Fully Funded Cost	Parameter (P_n)						Total Score
		P_1 Innovativeness	**P_2** Applicability or Transferability	**P_3** Potential Cost Effectiveness	**P_4** Potential Env Benefits	**P_5** Recognized Need for Info	**P_6** Potential for Technological Advancement	
Bioengineered Oyster Reef	$1,981,822	3	2	2	2	3	2	14
Sediment Containment System for Marsh Creation	$1,163,343	3	3	2	2	2	2	14
Positive Displacement Pump	$3,069,108	3	3	2	1	2	2	13

Demonstration Project Parameters

(P_1) *Innovativeness* - The demonstration project should contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone. The technology demonstrated should be unique and not duplicative in nature to traditional methods or other previously tested techniques for which the results are known. Techniques which are similar to traditional methods or other previously tested techniques should receive lower scores than those which are truly unique and innovative.

(P_2) *Applicability or Transferability* - Demonstration projects should contain technology which can be transferred to other areas of the coastal zone. However, this does not imply that the technology must be applicable to all areas of the coastal zone. Techniques, which can only be applied in certain wetland types or in certain coastal regions, are acceptable but may receive lower scores than techniques with broad applicability.

(P_3) *Potential Cost Effectiveness* - The potential cost-effectiveness of the demonstration project's method of achieving project objectives should be compared to the cost-effectiveness of traditional methods. In other words, techniques which provide substantial cost savings over traditional methods should receive higher scores than those with less substantial cost savings. Those techniques which would be more costly than traditional methods, to provide the same level of benefits, should receive the lowest scores. Information supporting any claims of potential cost savings should be provided.

(P_4) *Potential Environmental Benefits* - Does the demonstration project have the potential to provide environmental benefits equal to traditional methods? somewhat less than traditional methods? above and beyond traditional methods? Techniques with the potential to provide benefits above and beyond those provided by traditional techniques should receive the highest scores.

(P_5) *Recognized Need for the Information to be Acquired* - Within the restoration community, is there a recognized need for information on the technique being investigated? Demonstration projects which provide information on techniques for which there is a great need should receive the highest scores.

(P_6) *Potential for Technological Advancement* - Would the demonstration project significantly advance the traditional technology currently being used to achieve project objectives? Those techniques which have a high potential for completely replacing an existing technique at a lower cost and without reducing wetland benefits should receive the highest scores.